KNOWLEDGE MANAGEMENT IN IT SUPPORT DEPARTMENT

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A THEMATIC PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF MANAGEMENT
COLLEGE OF MANAGEMENT
MAHIDOL UNIVERSITY
2016

Thematic paper
entitled
KNOWLEDGE MANAGEMENT IN IT SUPPORT DEPARTMENT

was submitted to the College of Management, Mahidol University
for the degree of Master of Management
on
May 8, 2016

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ACKNOWLEDGEMENTS

KNOWLEDGE MANAGEMENT IN IT SUPPORT DEPARTMENT

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M.M. (INNOVATION IN MANAGEMENT)

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ABSTRACT

This article attempt to shares and examines the knowledge management of the IT support department in the company A. I would like to share my experience and appreciation where the knowledge management is impact to working process, services enhancement, employee's satisfaction and customer satisfaction in IT department of the company that I am currently employed. I named the company in this case as company A, this is to avoid any security issue and to be honor to the company. Company A is an IT company where the products and services are related to technology aspects, which the main product is Global Distribution System (GDS) and the other IT application and platform. Being an IT company, after the products have been implemented or installed at clients' side, the supporting from IT support department is quite significant and necessary, as most of the clients are not happy when the system is interrupt while they are running their business. In year 2012, the company faced many difficulties about the customer services in term of IT support. The management received a huge amount of customer complaint and unsatisfied on the services from the clients. The management then settled the meeting and found out the solution how to support the customers better and faster in timely manner for the IT support department. In consequence, the knowledge management is the effective and innovative tool that the department use to support their working process and services.

Nevertheless, the implementation of the knowledge management system is not easy as there are several factors that the department have to consider. In this paper intention to describe some of the factors that influence the knowledge management implementation to be successful, including obstacles and difficulties that the IT support department confront with. It also states to what the stakeholders feel with the knowledge management, as well as good points, weak points and the benefits that the employees and the company will gain from this knowledge management in general and specific term.

KEY WORDS: Even Study/News Announcement /Currency Exchange/GBP-AUD

23 pages

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CHAPTER I
INTRODUCTION

Knowledge management is a methodology of extracting, distributing, retrieving, sharing and utilizing the knowledge in the effective ways. Knowledge management is quite significant for all organizations nowadays, especially medium to huge organizations. The knowledge management is not only benefit to organizational itself, but it also benefit to stakeholders such as employees, internal customers and external customers. The knowledge management is considered as an organizational asset, which its content can create the value to employees and customers. From base experience, problem analysis and troubleshooting in the previous cases or mistaken would help the employees to analyze the problems and perform to solve the problem faster. Therefore, this will represent the customers how expertise that the company do have, it also show quality of the resource and the ability to generate the value to the customers efficiency. The knowledge management does not mean only base knowledge and best practices, besides it includes innovative tools, techniques, tactics, policies and procedures. In each organization may have different process and method to manage its own knowledge database, it depends on the size of the organization, vision, mission and strategy. Some organizations manage its knowledge database in term of documentation or hard copy and some companies manage the knowledge in term of shared drive, which contain of useful documents or presentations that written by expertise. Moreover, some organizations manage the knowledge in term of system where stored and accessible through intranet, which the authentication and credentials are required for the users to go through the database. In some large organizations provide its knowledge management to theirs trusted customers, so the customers can easily find the solutions or best practice statement, which could help them to solve the problem without contact help desk or support team when they confront with an issue or similar issue that had occurred in the past. The companies or organizations might have to update the knowledge database regularly to keep the knowledge up to date or compatible with the trends and technologies.

Especially for the IT companies, the knowledge management should up to date, as the world of technology is keep changing rapidly. The employees may have to keep up to date the knowledge and learn the new or upcoming technology all the time to be able to support their clients or provide the advices, solutions and suggestions to their clients faster.

On the contrary, if the organization lack of knowledge management or none of the knowledge database collection in its organization, their employees may not confident to support their clients and they might probably lose the trustworthiness from their customers. In the worst case, the customers might feel not confident to stay with the company and they might consider to do not extend the contract. There are some reasons that support on this statement, which are the company or the management does not think that the knowledge manage is important and waste the time for their employees to perform the routine job. The employees do not want to spend their time to create the documentation or best practice and do not see know the knowledge management will benefit to them or organization. The employees have no motivation to learn new things and manage its knowledge on the previous experience and issues. In the competitive organization, some employees keep their own knowledge and best practice from his or her old experiences as personally and do not want to share to other colleagues as they feel that the knowledge is only belong to them and it takes a lot of time to gain the knowledge, hence why they have to share to the other. From the statement, the company might lose the chance to collect knowledge from their employees who has value knowledge or expertise in particular field and manage it to common and sharing to the whole company.

Company A has established 25 years ago in Nice, France and had several main departments in some countries around the world to be able to support global customers. It has three main offices based in France, Germany and USA. Moreover, other regional offices are based in London, San Jose, Sydney, Bangalore, Singapore and Bangkok. Their regular customers are Airlines customer, Hotel providers, Car providers, Cruise companies and travel agencies around the world. After the product has been launched, another significant department that get closer with customers is IT support department, which operates 24/7, or 24 hours and 7 days operational. The services level agreement (SLA) is getting involve to this IT support department according to

the contract agreed with customers. Unfortunately, in some cases, the team cannot perform to solve the problem within the agreement. The management received a lot of complaint from customers, especially premium customers where the IT support department could not fix the issue when the system corrupt or down, which caused them the business corruption. Some of the clients designed to use the services from other competitors and some clients do not extend the contract. Therefore, knowledge management is one of the tool that the company use to solve this problem.

CHAPTER II
LITERATURE REVIEWS

In this phase provides the general overview of knowledge management and knowledge capturing, which include knowledge storing, knowledge sharing and applying of IT department in company A. As mentioned earlier, company A is an IT company where the products and services are related to technology aspects. Hence, the knowledge management is quite significant, necessary and help to support the department in its working flow. The literature illustrates knowledge management and knowledge sharing which affect working process, team's performance and individual performance. Moreover, it also mention to the key success factors that may influence and effect in knowledge sharing process. Besides, the team and employees experiences are also the key factors that influence and support this knowledge sharing and applying processes to be success. Not only sharing the knowledge in the department, but also share to the trusted customers. The scope in this research is concerned with two main topics, which are Knowledge Management Definition and Methodology of knowledge capturing, Storing, Sharing and Applying.

2.1 Knowledge Management (KM)

As defined by Karlsen & Gottschalk (Factors affecting knowledge transfer in IT projects, 2004), "Knowledge Management is a method to simplify and improve the process of creating, sharing, distributing, capturing, and understanding knowledge in a company". In an organization, knowledge management is one of the significant process to defend against the knowledge loss and disappear. Knowledge capturing, storing, sharing and applying are the most important steps, there are the core of how to manage organization's knowledge and the effective ways to use the knowledge. Knowledge management is considered as a company asset. These assets may include databases,

documents, policies, procedures, and previously un-captured expertise and experience in individual workers (Duhon, 1998).

"Knowledge management is a collaborative and integrated approach to the creation, capture, organization, access, and use of an enterprise's intellectual assets" (Grey 1996). Knowledge management consists of leveraging intellectual assets to enhance organizational performance" (Stankosky 2005). All mentioned definitions share organizational knowledge and corporate direction. In historical, Knowledge management is primarily of managing the knowledge of and in organizations, which the process and methodology are different according to organization's size, company vision, mission and strategy. Perhaps Knowledge management is to capture the knowledge and make it available for others to use in the organization. Knowledge management create the possibility of capturing, storing, sharing and utilizing the knowledge and experience of the organization.

The three main aspects of the knowledge management are from data, information and knowledge, which its definition can be described as following.

1. Data contains of basic facts, statistics and values, which the purpose of collection is for reference and analysis. The data can be collected both from internal and external organization, such as number of cases or issues raised from customers, type of issues or problems, and the number of customer complaining and satisfying with the products and services, etc.

2. Information is a kind of fact collection that contain with additional values. Information gather and provide the context of the data, which helps the organization to answer the management's queries, which allow management to utilize on business planning.

3. Knowledge symbolizes the understanding and awareness of information and the utilizing information in the effective ways that make it possible to support decision-making. For example, the time spending for each employee on each case, how the employee handle the case, what skill he or she lack of and what field should he or she improve to handle the case faster and more efficiency. So, that the organization or management can provide the training or up skills to the employees in the field that they lack of.

As mentioned above, the company can collect data from internal and external organization, and then turn the data into information in a period of time, this allows the company develop its knowledge and store it in organization database.
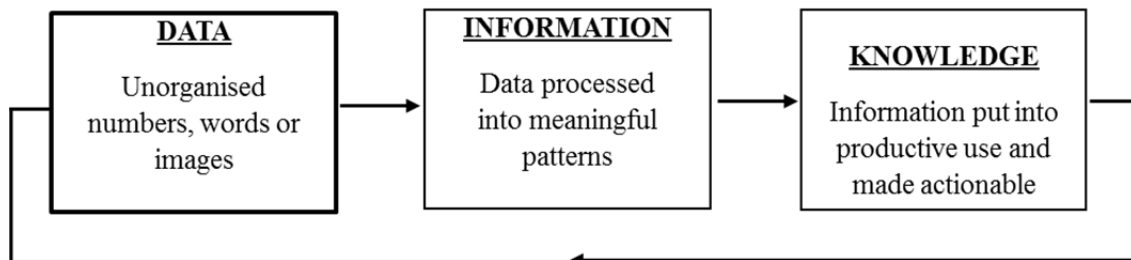
| **DATA**
Unorganised numbers, words or images | → | **INFORMATION**
Data processed into meaningful patterns | → | **KNOWLEDGE**
Information put into productive use and made actionable |

Figure 2.1 Data to Knowledge

Source: Adapted from Newman (1999: 2)

2.2 Core Process of Knowledge Management: Methodology of knowledge capturing, storing, sharing and applying

Capturing, storing, sharing and applying the knowledge is crucial to knowledge management. This represent and identify how the knowledge is from, where the organization's knowledge is placed and how it can be used retrieve and utilize in the organization.

Knowledge capturing can be performed in different processes according to the organization. Some organizations capture the knowledge from the employee's experiences, database from internal and external organization, lesson learned, data mining, best practice, community, learning, action analysis, current awareness profiles, libraries and meeting, etc. In some organizations manage to put this knowledge capturing as a part of employee's responsibility. Therefore, the employees will have to record or list what the best practice they experienced, or any advice from the expertise and all knowledge from training or meeting in the organization and from external organization.

Knowledge storing is the process of how the organization manage to store and keep its knowledge database. It can be in term of documentation, presentation, share drive or manage in term of system. For knowledge storing as documentation, the organization may keep it by classifying folder and topic of the knowledge, this method

will make it easy for the users to search for particular topic. For presentation and share drive, it normally use in medium or huge companies that have several departments and accessible by everyone in the organization from their computer or workstation. For the knowledge management in term of system, this use for the big companies that have offices and departments located in several locations or countries. However, all user must have user name and password, which is the authentication to access the knowledge database of the company.

   Knowledge sharing and applying is represent the utilizing of the knowledge in organization. It is an activity how the knowledge exchange among people in the organization or community. Knowledge management is an essential about creating the right knowledge from the right source and available to the right people at the right time. Perhaps, the knowledge sharing and applying processes probably the majority process of the knowledge management as it will show how effective that the knowledge is utilized. The way to explicit the knowledge can be performed in serval channels, which depends on organizational perspective. The main principles on this know explication are articulation, awareness, access, guidance and completeness, etc. To facilitate the knowledge sharing and applying, the organization must understand the requirements of the users as well as the complexities of knowledge management.
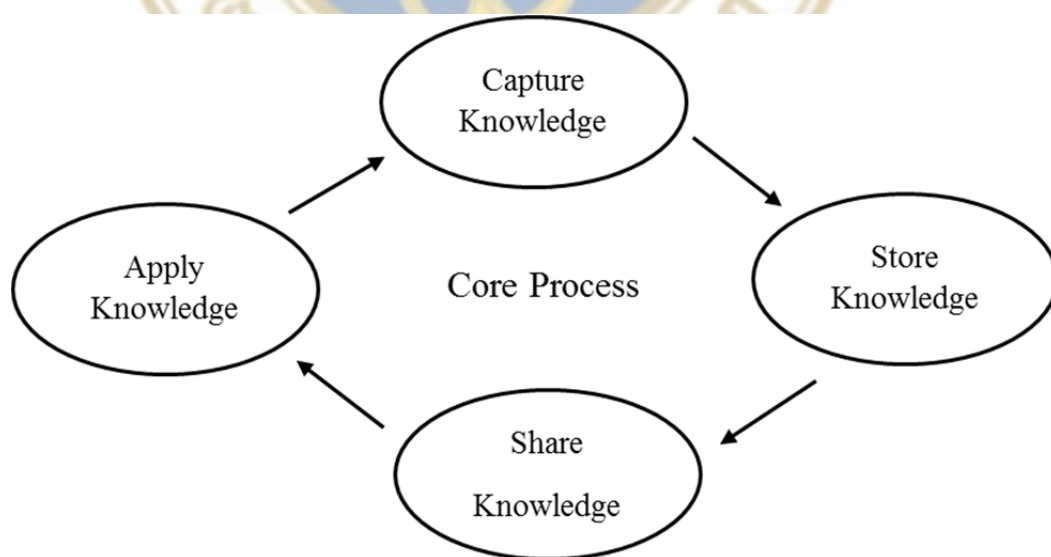

Figure 2.2   Core Process of KM

Source: Heisig (2001:28)

CHAPTER III
RESEARCH METHODOLOGY

In this chapter purposes to express the research methodology, including the illustration of gathering relevant data and the processing of data collection. The research will focus on how the team manage its knowledge, how is the process of knowledge capturing and storing, as well as the knowledge sharing among the team. It is also include good points, weak points and benefits of having and not having knowledge management.

3.1 Research Methodology

In this research methodology, it is believe that qualitative research is suit for collecting the data and will perform by interviewing of five people in the IT department and all of them are from different levels. There are one people from management level, one from team leader, one from knowledge management center, another two from IT support team. The objective is to comprehend and understand factors that influence them to get involve in the knowledge management of the team, as well as get to know how useful and benefit that they gain from this knowledge management. To let the interviewees feel comfortable to answer the questions with no limitation and able to express their ideas and thinking, the open-end questions will be used in this method.

Company A aims to increase customer satisfaction by resolve the issues or problems report by their clients before or within the services level agreement; however, they are facing some limitations and obstacles during operation. It is understood that, knowledge is the most significant and it is the key success factor in IT support department. Unfortunately, the team still confront with some constraints to develop and implement the knowledge management to be used and available in the department. The purpose of

the interview is to discover the current situation and problem of knowledge management in company A.

Prior to conduct the interview, the researcher have asked for permission from management and the authorization was given. The researcher is allowed to use internal information and able to conduct the interview in this case study. The interview process started with sending invitation to all interviewees and asked for their convenience time to take the interview. In the invitation has included the questions for all of them to prepare and allow them the time to provide answers in the meeting. After the replying and feedback were received from all interviewees about their convenience time of the interview, the interviewer then settled the meeting room and performed the interview wherein the timeframe was targeted to one week. The interview was conducted to 5 stakeholders, who are manager, team leader, 2 operation staffs and one staff from knowledge management team in company A. It took 5 days within one week for this interview session, as they all were busy and their working hour scheduled in different times. The interview took 45 minutes for manager, 50 minutes for team leader, 1 hour each for operation staffs and 30 minutes people from KM team.

3.2 Data Collection

In order to perform the data collection, the relevant factors must be defined for each level of the interviewee to cover the related objectives. Therefore, in this interview the questions separate into 2 categories. The first category is for management level, which are manager and team leader. The second category is for the IT support team members or the operation staffs. Moreover, the last category is for the people from knowledge management center. With different experience, level and responsibility of the interviewees, the answers will probably differentiate and will be useful for the analysis.

According to the planning above, following are the name and position of the five interviewees.

1. Mr. Bravo, Manager of IT support department
2. Miss. Charlie, Team Leader of IT support department
3. Miss. Delta, Operation staff of IT support department

4. Mr. Oscar, Operation staff of IT support department

5. Mr. Tango, Knowledge Management Center (KM)

3.3 Question Design

As stated earlier, the question separated into 2 categories according to experience, level and responsibility of the interviewees. Thus, the criteria used to design the questions based on the framework and perspective of the interviewees. The interviewing will be taken in the company A for 5 days in the same week and start first with manager; Mr. Bravo and team leader; Miss Charlie, follow by 2 operation staffs; Miss. Delta and Mr. Oscar, then end up with people from the knowledge management center team; Mr. Tango.

Table 3.1 Question Design

Position	Question
Manager, Team Leader and KM staff	1. What is the knowledge management process in your department? 2. Do you think this kind of knowledge management process is effective? 3. How do you plan for knowledge capturing, storing and sharing process? 4. How do you prevent the knowledge loss from your department? 5. Do you think that all the team members share all the knowledge that they do have? 6. What is the effective way to share the knowledge in department? 7. How do you measure quality and effectiveness of knowledge sharing? 8. What is the weak points and good points of implementing KM and why? 9. How do you manage staffs to access the knowledge database and system without corruption? 10. What are the obstacles on this KM implementation?

Table 3.1 Question Design (cont.)

Position	Question
Operation staffs	1. What is the knowledge management process in your department? 2. Do you think this kind of knowledge management process is effective? 3. What makes you feel confident and trust the knowledge that you have got from knowledge sharing? 4. If some information were incorrect, what would you do in that situation? 5. When you received new knowledge sharing, what do you action with that knowledge? 6. Do you always share the new knowledge to the team regularly? 7. Do you think the knowledge management is important for your team? 8. What are the obstacles on this KM implementation? 9. Do you have any recommendation for improving knowledge sharing in the team?

After complete the data collection process, all data that gained from all interviewees will be combined and integrated for further analysis and visualize the result on each aspects.

CHAPTER IV
FINDINGS ANALYSIS

When the data has been combined and analyzed, hence in this part is to provide outcome from the data analysis. The outcome show the significant factors that affect the working process and working flow of the IT support department. The IT support department is the second level helpdesk, who provide the services for global customers. If that case is critical and unable to fix at their level, they will have to escalate further to third level support team in France and Germany.
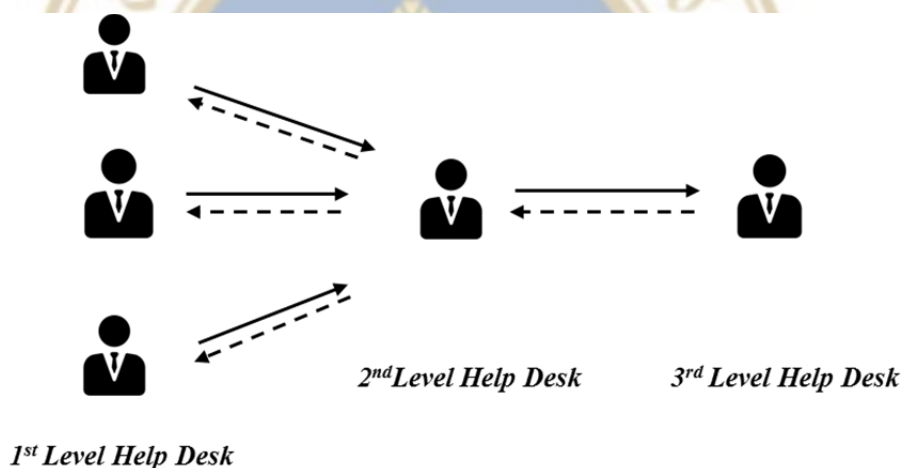
Figure 4.1   IT support department working flow

In year 2012, company A faced some critical issues of customer complaint and some customers designed to do not extend contract and moved to use the system of the competitors. In several cases of the system link down, the IT support team could not find the root cause of the problem in a short period and could not provide the clarification to customers about the situation, which caused the business interruption. Moreover, it took very long time to find the root cause and fix the problem. The company received a lot of complaint and have to pay for the claim fee in huge amount after the issues were recovered. The issue happened repeatedly and the solution never

provided to the customers within services level agreement, while the competitor's system was working without interruption or when interrupt, they can fix it faster. Somehow, the travel agencies unable to issue airplane ticket on time due to the system crashing, the flight bookings were cancelled and the impact customers unable to get onboard.

The most critical issue occurred during New Year of 2012; the issue was the airlines customer (approximately 50 airlines) unable to make reservation, issue tickets, operate departure control system and cargo system. It also affected travel agencies around the world who use the company A's system. Therefore, the business was corrupted worldwide and it took more than 5 hours to fix the problem, which was very long time for the IT Company to identify and solve the problem. At the airlines side, the critical situation caused them the flights delay and cancellation, which they have to pay compensate and arranged the accommodation to their impact passengers. Same as travel agencies lose some chances to make the reservation and sell the tickets to their clients. Company received high volume of complaint during the issue occurred and after it was recovered. Huge amount of the claim was paid according to the agreements and to retain customers. A few big airlines designed to use the system of the competitors, as they are no longer trust the company A. The management raised the question why the IT support team was working and coordinating with technical team very slowly and unprofessional. All necessary action performed very slow and no proper progress provide to customers during the issue occurred.

The management then settled the meeting with all department concerned and found out the solution how to fix and prevent the critical issues. Besides, the IT support team can also support the customers better and faster in timely manner. In consequence, the knowledge management system is the effective and innovative tool that the department use to support their working process and services. The company settled a team called "Knowledge Management Center or KM" to manage and design the KM system. However, the team need to cooperate with IT support team or operation staff to manage the knowledge, update it regularly, as well as share and apply among the team. Actually, the company A do have the manual guide, handout and documentation for their employees to refer when assist and service its customer. However, it take long time for them to find the document that stored in different folders in shared drive and

some printed manual and guide book, which the information probably not up to date. Therefore, when they received a report from clients, they have taken some time to find out information or solution from the manual and sometime they cannot find it. This made the issue solve very slow and spend too long time to recover. For this reason, KM team has designed to create the Knowledge Management system and provide the authentication to all users to access and search for the knowledge, best practice, workaround, root cause of problem, solutions, etc. which help IT support staffs to handle the case faster and more efficiency. These helps to increase customer satisfaction and retention.

After the KM system has been implemented in the first year (during June 2012), the company able to reduce the number of complaints by 70% and continue to reduce more in another years. It is currently almost 4 years that the KM system is implemented and used, company A can reduce the customer complaint on this beginning of the year 2016 by 91.5%. The company can gain new customers both online and offline customers from this successful of KM system implementation. Moreover, some big airlines customer extend the contract to be longer and plan to use more products that the company going to launch next year. However, the process of KM system is not easily and there are some obstacles that they management have to overcome. Following interview information from different levels and stakeholders would illustrate it well.

4.1 Interview Session and Data Analysis

At the interview moment with Mr. Bravo who is manager, he said, "*As management, we will focus only on the number, we want to reduce the number of customer complaint and we want all staffs to spend less time working on particular case and recover the case as soon as possible. Therefore, we have pressure them to follow our requirements which could reduce the number of complaint by 70% on the first year.*" Mr. Bravo is a kind of busy person and he seems to have meeting all day, however he is very kind, friendly and willing to give the interviewer the information. Miss Charlie, who is the team leader, also stated that "*I do agree with management strategy on this KM that we should realize on this KM to reduce customer complaint.*

"Then I manage to push this knowledge manage capturing and sharing to all staffs to alerts and keep doing it. And defined these responsibilities to all of them in yearly performance review". Miss Charlie is an extrovert and talkative person, but do not care much on people's feeling, especially her subordinates.

Miss. Delta and Mr. Oscar are from the operation staffs, they totally agreed that the knowledge management is help them a lot on working process and shorten time to resolve the issues. However, they still feel frustrated on the way that they were pushing to perform this task. Miss. Delta said that *"I know it is important, but they shouldn't pressure us this way, I have to do routine job and keep searching and updating the knowledge. I think it's too much and overload"*. Mr. Oscar also said that *"The knowledge management helps me to find some best practices and solutions to resolve the issue faster, but I don't like the way that team leader pressure us. I'm not comfortable to do so."* Both Miss. Delta and Mr. Oscar are working in this team for 6 and 5 years, so they are quite familiar with customer, working process, and the way to handle the incident in different issues.

Last interview with Mr. Tango from knowledge management center, who manage the KM system. He is very positive person, he mentioned that his team would like to encourage everyone to share ideas, information, new knowledges, or new upcoming technology and event and always keep alert on updating the new knowledge and refreshing. He said, *"Knowledge is company's asset; our team is created to prevent the knowledge to be loss, but we could not finding new knowledge only from our team. That is why we need everyone in the company to be alert and share what they know to everyone in the company"*.

According to the questions raised to each particular interviewee and the result received from the interview, the finding is that they all agreed that the knowledge management is quite important and directly affect working process and team performance. The operation staff feel more confident to handle the normal technical issues and critical issues. They could retrieve the workaround and solution to fix the problem faster and easier from KM system and no need to open guidebook or manual guide. They can also provide the same information to the clients with similar issues report, this is show the standard of services that the team do have. However, there are still a small confliction, which management perspective aims to improve

customer satisfaction and reduce customer complaint, whereas the operation staffs feel uncomfortable when they are forced to manage KM, However, the operation staffs cannot refuse as it is clearly defined as one of the objective in their performance review. However, from knowledge management team's point of view, he was able to come up with good solutions and able to show the benefits of how the knowledge management system will help the team to be success and manage its working flow better within services level agreement. KM team always try to find the way to encourage IT support staff to access and refer knowledge, which stored in KM database regularly and convince them to create the new knowledge when they confront with new issue and finding the best solution to fix that issue by give a small shopping voucher to those staff. In addition, to provide the interview result deep in details, the researcher use components of knowledge management framework to present the most significant evidences and how the data related to each particular statement. The methodology, framework and all collected data are analyzed as following.

4.2 Methodology of Knowledge Capturing, Storing, Sharing and Applying

4.2.1 Knowledge Capturing

In this IT support department, the knowledge capturing process perform by all operations staffs by promoting and pushing this process to all staff members. Therefore, it is the individual responsibility of the staff to capture the knowledge in any process of its working flow and any event that the company provide to them. According to their working processes, the knowledge that they can capture are from their own experience, problem solving from their cases that they have worked, advices from expertise, advices from product development teams, technical team, customers, providers, instructors in training session, company workshop and presentation.

4.2.2 Knowledge Storing

The management for this IT support department has provide the solution and process to all of operation staffs to store the knowledge in the same direction by upload into the share drive and update to its knowledge management system regularly.

The authentication is provided and managed by KM administrator. However, as there are different personality type and characteristic of staff members, so each staff will also have different. The team members also managed its knowledge database in share drive, which everyone in the team able to access from their particular PC or workstation.

4.2.3 Knowledge Sharing and Applying

The knowledge sharing in this IT support department perform by the one who created the new knowledge will first send notification to notify all team members for the new knowledge via email and CC to its manager and team leader. Then the KM staff will verify the knowledge and correct grammar if need. After that, they will publish the knowledge and announce for another users to acknowledge and apply. Some sharing processes are from the training session, workshop and presentation. The sharing also present in term of communication among team member via verbal, company chat room, phone call, email, share drive, individual coaching and training.

The effective way for this knowledge sharing is the IT support staffs can perform to solve the issue that reported by clients faster, the issues could easily recover at their second level helpdesk and no need to escalate further to third level. They can refer the best practice and perform gradually steps to resolve the issue.

Another framework that use to analyze the data and information from the interview are following.

4.2.4 Identification of needs

Management comment that the knowledge management is necessary and everyone in the organization should take in to account. That is the reason why the manager asked team leader to put this task in the objective of performance review for all staffs. The manager stated that if they did not manage this way, some staffs might not aware and lazy to do. From the statistic that the manager show to researcher, the team can reduced the number of customer complaint by 70% within one year and only 10% of the case that staff cannot solve within services level agreement. So that, they want to reduce more number of this and increase productivities.

In term of operation staffs, they also agreed on this purpose of needs. They said that knowledge management help them a lot when they confront with the case that

used to report by clients and the solutions or workaround has already provided in the knowledge database. Therefore, they can refer the solution or workaround back to client and the case can be closed very fast. The customer also happy with this fast service and their business can continue after the issue is solved.

In point of view of the knowledge management center team, they totally agreed with this needs. They would like to encourage all staff to visit the knowledge management system regularly as some update information and knowledge are stored in the system. Every user can also comment and provide feedback to the team if they do have queries or new information that would like the team to update the new information to the system. In the system also present number of visitor and they will keep it as statistic or adjust and amend on the content from feedback received by users.

4.2.5 Identification of knowledge resources

In this case study of IT support department in company A, the knowledge recourse mostly from the solution from old cases that was resolved, the advices from expertise, documentation written by product development team, presentation created by expertise and knowledge delivery from trainers. This is according to feedback and interview result received from operation staffs and team leader. The operation staff has mentioned that some knowledge they have gained from external, example for customers and providers. Hence, the acquisition of the knowledge are from various kind of sources depending on the issues or incidents.

4.2.6 Stakeholder

People involve in this Knowledge Management are operation staffs and KM center staffs, which concerns on knowledge capturing, knowledge storing, knowledge sharing and knowledge applying processes. The criteria that use to analyze the individual stakeholder are personal characteristics and barriers.

4.3 Obstacles

Personal Characteristics: According to the interview information from operation staffs and its team leader, personal characteristic has influence on the knowledge management process, for staffs who like to learn some new things and alert, they will always seeking for the new information all the time, alert and keep sharing that knowledge to team members. There are also some staffs who love to learn new things in the team, but do not want to share experience and knowledge, as they need to keep the knowledge personally. They just want to improve their working performance and do not let other gain the benefit. Another characteristic of the operation staff is do not want to learn new things, waiting for other colleagues or development team to share new knowledge. They want to perform only routine job and only refer an existing document and do not check whether that document is up to date or not.

Personal Barriers: As interview the team leader and manager, all staffs in the team are from different backgrounds as the company have several products that provide to different customer segmentation. So, the knowledge from the background of each staff, education and interesting are also different. The staffs who educated from IT or computer science feel more comfortable and confident to share the knowledge in IT aspect, but the staffs who from travel industries and airlines fields are not comfortable and not confident to share the knowledge. This also consider as the barrier of knowledge management.

CHAPTER V
CONCLUSION & RECOMMENDATION

5.1 Conclusion

Based on the above research finding and my interpretation, the knowledge management is quite significant to all departments in the organization. It can provide some benefits to the clients and company itself. Knowledge Management system allows IT support team members to access the knowledge, best practice, workaround and solution, which able to services and handle the issue raise by customer faster and better within services level agreement.

As defined by Karlsen & Gottschalk (Factors affecting knowledge transfer in IT projects, 2004), "Knowledge Management is a method to simplify and improve the process of creating, sharing, distributing, capturing, and understanding knowledge in a company". The main core process of Knowledge Management in company A is performed as following.

1. Knowledge Capturing
2. Knowledge Storing
3. Knowledge Sharing and Applying

The company manage its Knowledge Management in term of system and take care by their KM team. The company were success in reducing the number of customer complain in the first year of KM system implementation by 70% and 91.5% in year four. The management aims to reduce more number of customer complain in another year. However, there are still some obstacles of personal characteristic as well as personal barrier of operation staffs and some rooms to improve on their knowledge management process, including the way in which they motivate their staffs to be involved in the process and Knowledge Management system. Even though, the department has established the knowledge management center team to take care, control the process, data and quality of knowledge management. However, the staffs still not access the system and utilize the knowledge regularly.

5.2 Recommendation

In the current situation, company A would probably need following improvement.

1. To build knowledge management into career paths by integrate into workflow.

The management may put the this step of knowledge utilizing to all staff members on its working flow that when they receive the incident report from client, they must go through the knowledge management system and database first, to check whether the best practice, lesson learned, or solution has been provided for that kind of issues.

2. To build common goal, mindset and standard of knowledge management.

The management only have the statistic of customer complaint only for their level, but never share to their staffs. Therefore, the staffs did not realized how the figure look like and why they have to improve. The management then should attention them on this information and show them how the knowledge management is work and give them the common goal and mindset to learn and share more knowledge, as well as set the standard. Thus, everyone should understand about the standard of knowledge management process and the way of utilizing.

3. To organize reward and recognition program to staffs to motivate them to involve in the knowledge management.

This is based on the quality of the knowledge management contribution. It also to influences staff who want to share knowledge, but do not feel confident. Moreover, it also motivate staffs who has valuable knowledge and do not want to share to the others to start sharing the knowledge and experiences. Therefore, all staffs are feel free to share their knowledge more and this also help to improve their knowledge.

4. To allow trusted customer to access knowledge management system.

The company may provide the access right to access KM system for their trusted customers, especially to the technical support team of some big airlines customer to be able fix the issue by steps advised in the knowledge management system without report the case to second level. This helps to reduce the issue report by clients and it is another to add the value to customers.

5. To provide refreshing training session regularly

The management should provide the training session for all IT support staffs to refresh its knowledge and gain new knowledge regularly from product development team and technical support team to keep all staffs up to date and able to services customers better and compatible with the rapidly changing of technology.

REFERENCES

Duhon, B. (1998). It's All in Our Heads, What is Knowledge Management, *European Management Journal*, *12*(8), 8-13.

Grey, F. (1996). *Knowledge Management Dimensions.* Manage Ideal Dimensions of Knowledge Management.

Heisig, P. (2001). "Business Process Oriented Knowledge Management." In Mertins,K., Heising, P., and Vorbeck, J. (eds). *Knowledge Management Best Practices in Europe*. pp. 1-57 .Berlin, Springer-Verlag.

Karlsen, J.T. & Gottschalk, P. (2004). Factors affecting knowledge transfer in IT projects. *Engineering Management Journal, 16*(1), 3-11.

Newman, A. (1999). Knowledge Management. *Info-line*. No.9903, March, pp.1-15.

Stankosky, M. (2005). "Advances in knowledge management: university research toward an academic discipline". In: Stankosky, M. (Ed.), *Creating the Discipline of Knowledge Management*. Washington, DC: Elsevier Butterworth-Heinemann.